

Changing to Use-Based Water Quality Standards

Why does Ecology want to change?

1. We found that it was very difficult to change from one class to another, either upgrades or downgrades.
2. The problem was caused in particular by the Classes having groups of uses and criteria that are independent of each other, with both needing to be met.
3. Under a use-based system it is much easier to adjust criteria because uses are directly related to a particular set of criteria.
4. We also have found that the existing classes do not allow for real-world mixtures of uses.

Uses and the Water Quality Standards

Protection of uses involves three issues:

1. The transition to Use-Based standards

- This is completed in our draft proposal

2. Actual implementation

- No change: permits, BMPs, TMDLs

3. Changes in uses made after the initial transition (UAAs)

- Focus of interest and concern

What Use-Based Standards Look Like

Example of a Class-Based System:

Class A

- Domestic, Agricultural, and Industrial Water Supply
- Aquatic Life
- Swimming
- Boating
- Wildlife
- Aesthetics, etc.

Criteria applied:

- turbidity
- dissolved oxygen
- temperature
- fecal coliform
- total dissolved gas
- toxics criteria, et al.

Example of Use-Based System:

Aquatic Life Habitat

Use Subcategories:

Bull trout
Salmon and Steelhead
Rainbow trout
Warm water fish

Criteria to Protect Use:

Temperature
Dissolved oxygen
Turbidity
Aq. life toxins, et al.

Waterbody Name and Geographic Location		Char Habitat	Spawning of Salmon, Steelhead, and Cutthroat Trout	Rearing of Salmon, Steelhead, and Cutthroat Trout	Interior Rainbow and Redband Trout	Warm Water Habitat	Water Contact Activities	Incidental Water Contact	Domestic Water Supply	Industrial Water Supply	Agricultural Water Supply	Wildlife Habitat	Commerce and Navigation	Aesthetic Enjoyment
(71)	Nooksack River and tributaries from the mouth to the confluence with the South Fork (river mile 36.5). See special conditions below.		Y				Y		Y	Y	Y	Y	Y	Y
(72)	Nooksack River and tributaries from the confluence with the South Fork (river mile 36.5) and including the middle fork up to and including Canyon Creek (river mile 1.0). See special conditions below.		Y				Y		Y	Y	Y	Y	Y	Y
(73)	Nooksack River, south fork, from mouth to Skookum Creek (river mile 14.3). See special conditions below.		Y				Y		Y	Y	Y	Y	Y	Y
(74)	Nooksack River, south fork and tributaries from Skookum Creek (river mile 14.3) to headwaters. See special conditions below.	Y					Y		Y	Y	Y	Y	Y	Y
(75)	Nooksack River, middle fork and tributaries upstream of Canyon Creek (river mile 1.0) to headwaters. See special conditions below.	Y					Y		Y	Y	Y	Y	Y	Y
(76)	Nooksack River, north fork and tributaries from the confluence of the middle fork (river mile 40.5) to the confluence with Boulder Creek (river mile 52.2). See special conditions below.		Y				Y		Y	Y	Y	Y	Y	Y
(77)	Nooksack River, north fork and tributaries from and including Boulder Creek (river mile 52.2) to headwaters. See special conditions below.	Y					Y		Y	Y	Y	Y	Y	Y

Waterbody-Specific Special Conditions:

- (71) The spawning season of October 15 – May 31 is to be used in applying criteria.
- (72) The spawning season of August 15 – June 15 is to be used in applying criteria.
- (73) The spawning season of August 15 – June 15 is to be used in applying criteria.
- (76) The spawning season of August 1 – June 22 is to be used in applying criteria.

The Transition to Use-Based

We have already drafted up all the necessary language to make the transition

The proposal reflects:

- federal regulations on use-assignment
- default system for designating char waters
- state data on salmon spawning periods

Changing uses is controlled by the federal regulations

**The uses currently designated in
the standards cannot be removed
without conducting a UAA
(described later)**

Current Designated Uses

Class AA, Class A, and Lake Class all have the same designated uses:

- Salmonid Spawning, Rearing, Migration, Harvesting
- Boating, Swimming, Wading, Fishing, Navigation
- Domestic, Industrial and Agricultural Water Supplies
- Wildlife Habitat, and Aesthetics.

**All these uses, or more stringent ones, must be assigned to these same waters,
Or UAA completed to justify not doing so**

Class B has all the same uses except:

- Spawning, Swimming, Domestic Water Supply.

What is a Use Attainability Analysis?

A UAA is a structured scientific assessment of the ability of the water body to support its designated uses.

A UAA is the tool used to:

- Remove designated uses
- Establish subcategories of uses
- Establish seasonal uses

A UAA cannot be used to remove uses that were in existence at anytime since 1975.

Does Ecology Have the Resources to Change Uses using UAA's after the Use-Based Standards are Established?

We are building capacity and looking for ways to streamline the process:

- Screening criteria to identify candidate waters
- Categorical UAAs - similar waterbody traits
- Placing existing guidance on our webpage
- Creating checklists to standardize submittals
- Include assessments with other field studies

Streamlining UAAs

1. Use simple, well defined physical limitations such as stream slope to make categorical use assessments:

Example 1: A 3.6 meter vertical obstruction or a 160 meters with $>20\%$ slope may be barriers to the distribution to anadromous fish.

Thus above such barriers we can establish only the spring period for the application of spawning criteria, since our resident fish are all spring spawners.

Streamlining UAAs (continued)

2. We can establish a checklist for Ecology and stakeholders to use so that everyone will be providing the right types of information in UAAs:

- Physical measurements and traits of waterbody
- Adjoining land uses and access restrictions
- Existing human sources of degradation
- Fish surveys and professional interviews used

3. We can do categorical UAAs based on the type of water conveyance or land management:

- Human-made irrigation conveyances
- Roadside ditches with similar traits

What is the process for UAAs to be reviewed and approved?

1. Reviewed to meet federal requirements
2. Request any additional information needed
3. If Ecology supports the UAA it would be initiated as rulemaking (appealable)
4. After public review and APA requirements are met, the change submitted to EPA
5. After CWA and ESA concurrence, the change would become effective

What oversight exists with changes in use protection?

Formal rulemaking, SEPA, and federal approval under CWA and ESA.

Changes in use protection with our current proposal

1. Bull trout temperature protection
2. Seasonal life-stage temperature criteria
3. Only one level of bacteria protection instead of multiple levels.
4. Human created systems (BMPs) – no numeric criteria

None of these changes are limited by the decision to go with, or not go with, use-based standards

But a use-based format greatly simplifies these changes

Possible Alternative Class System:

AA = Bull Trout Habitat

A = Salmonid spawn and rearing habitat

B = Salmonid rearing-only

C = Redband Trout

D = Warm Water Habitat

E = Human Created Waters

More classes would be necessary to address other stakeholder concerns (irrigation drainages, ephemeral and headwater streams, etc.).

If we stay with the class-based system, UAAs would still be needed to:

- eliminate designated uses
- change between classes
- establish special conditions.

Ecology's Conclusions

- 1. No more resources required to switch to a use-based system.**
- 2. Actual implementation (the application of the criteria) does not change.**
- 3. Existing designated uses remain protected.**
- 4. The big stakeholder issue seems to be wanting to eliminate unwarranted designated uses – UAAs required.**
- 5. The need to do UAAs does not increase.**
- 6. Changing standards using UAAs will be actually easier.**
- 7. The use-based format will make future tailoring of the standards easier.**

The Evaluation of Natural Conditions – Building on Our Last Workshop

The ability to determine natural conditions can also be streamlined, and can be used to define what is attainable water quality.

- Temperature of large lakes or marine bays.
- Waters flowing out of areas without potential human causal factors.
- Historic data collected prior to current human causative factors.